## **ABSTRACT**

A signal detection system of the invention comprises: a target signal feature quantity calculation section which derives a feature quantity series from a target signal; a stored signal feature quantity calculation section which derives a feature quantity series from a stored signal; a target signal histogram calculation section which searches for a histogram of feature quantities in a target signal feature quantity series; a stored signal histogram series calculation section which obtains a histogram series in regard to a stored signal feature quantity series, by calculating a histogram of feature quantities; a stored signal histogram grouping section which groups histogram series, for which a similarity level satisfies a criteria; a stored signal histogram group selection section which selects groups which include an area to be output from a histogram group; a stored signal collation section which performs collation with respect to histograms of a histogram group, and obtains a similarity value; and a collation result output section which outputs the area collated by the similarity value, as a detection result.